# 36. Ventricular Arrhythmias

### V-Tach in Healthy Hearts:

- Usually presents in young--Two major Types Present with specific abnormal ECG.
  - 1) For RV outflow tract, ECG shows LBBB and inferior or right axis deviation
  - 2) For LV septum, ECG shows RBBB and left axis deviation
- Catheter directed radiofrequency (RF) ablation is preferred treatment

#### **Torsade de Pontes**

- Means "Twisting of the points" Swinging polarity of QRS
- EAD-Due to early after depoloarizations
- Polymorphic VT mostly preceded by marked QT prolongation
  - 1) Electrolyte abnormalities: low Mg, K, Ca
  - 2) Drugs: Tricyclic, Antidepressants, Antiarrhythmics 1a, Sotalol, Amiodarone, Emycin...

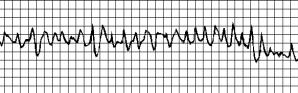


#### Types of Monomorphic V-Tach

- a. Scar-related reentry post-MI, sarcoidosis Repaired Tetrology of Fallot, Batista
- b. Uncommon scar-related reentry scleroderma, giant-cell myocarditis
- c. Bundle-branch reentry
- d. <u>Brugada Syndrome</u> (ST elevation in V1-V3) more common amongst young men in South East Asia. It is also known as "Sudden Unexpected Death Syndrome" (SUDS). It has very recently been associated with mutations in the sodium channel
- e. <u>ARVD</u> = Arrhythmogenic Right Ventricular Dysplasia, a congenital cardiomyopathy

# **Ventricular Fibrillation (VF)**

- a. Zigzagging baseline; heart is a useless pump
- b. New guidelines for use vasopressin, amiodarone-



#### **Sudden Cardiac Death**

- a. Most cases occur in patients after myocardial infarction in patients with CAD
- b. Blunt impact (including sports, violence injuries) Commotio Cordis
- c. Emotional Trauma: Earthquake may also trigger SCD
- d. Non-potassium sparing diuretics appear to increase risk

**B-Adrenergic blockers** very effective post-MI prophylaxis/preventive therapy

# Indications for AICD-Implantable Cardioverter Defibrillator Therapy

- a. Cardiac arrest due to VF or VTach, not due to transient or reversible causes
- b. Spontaneous sustained VTach
- c. Syncope of undetermined origin with clinically relevant VTach or VF on EPS
- d. Nonsustained VTach with coronary artery disease, LV dysfunction
- e. Nonsustained VTach with EPS inducible VF or sustained VTach not suppressed by drug